

**AMENDMENTS TO THE CLAIMS**

1-19 (cancelled)

20. (Previously presented) A *Bacillus* strain capable of growth and sporulation comprising:

- (a) a homologous *spoIIIE* gene from another bacterium partly or wholly replacing an endogenous *spoIIIE* gene; and
- (b) two reporter genes, wherein each reporter gene is operatively linked to a promoter and responsive to the action of  $\sigma^F$  during sporulation; and wherein the first reporter gene is located in a segment of a DNA that is trapped in a prespore compartment when SpoIIIE function is impaired and the second reporter gene is located outside said DNA segment.

21. (Previously presented) The *Bacillus* strain of claim 20, wherein the *spoIIIE* gene has been partly or wholly replaced by a homologous gene from *Streptococcus pneumoniae*.

22. (Previously presented) The *Bacillus* strain of claim 20, wherein the *Bacillus* strain is a *B. Subtilis*.

23. (Previously presented) A method of assessing an agent for antibiotic activity comprising the steps of:

- incubating at least one *Bacillus* strain of claim 20, in the presence of the agent; and
- observing expression of the reporter gene or genes; wherein expression of only one of two reporter genes indicates that the agent acts as an antibiotic.

24. (Previously presented) The method of claim 23, wherein the *Bacillus* strain is induced to sporulate in the presence of the agent.

25. (Previously presented) The method of claim 23, wherein the *Bacillus* strain is induced to sporulate and is contacted with the agent just prior to asymmetric cell division.

26. (Currently amended) A panel comprising a plurality of *Bacillus* strains of claim 20, wherein  
the *spoIIIE* gene of each *Bacillus* strain in the panel has been partly or wholly replaced by a homologous *spoIIIE* gene from different bacteria.

27. (Previously presented) A method of assessing an agent for antibiotic activity comprising the steps of:

- a) incubating a panel of different *Bacillus* strains of claim 26, in the presence of the agent; and
- b) observing expression of the reporter gene or genes; wherein expression of only one of two reporter genes in a strain indicates that the agent acts as an antibiotic.

28. (Previously presented) A method of determining whether an agent inhibits SpoIIIE function in *Bacillus* species, comprising the steps of:

- inducing the *Bacillus* strain of claim 20 to sporulate in the presence of the agent, and
- observing expression of the first and the second reporter gene; wherein expression of only one of two reporter genes indicates that the agent inhibits SpoIIIE function in *Bacillus* species.

29. (Previously presented) A method of determining whether an agent inhibits the outgrowth of a bacterium comprising the steps of:

- incubating a *Bacillus* strain of claim 20 in the presence of the agent, and
- observing expression of the one or more reporter genes; wherein expression of only one of two reporter genes indicates that the agent inhibits the outgrowth of the *Bacillus* strain.

30. (Currently amended) A method of preparing a composition for use in killing or inhibiting the outgrowth of bacteria comprising ~~carrying out contacting the bacteria with an agent identified by~~ the method of claim 29 and formulating the agent identified as being capable of inhibiting the outgrowth of bacteria into a composition for use in inhibiting the outgrowth of bacteria.

31. (Currently amended) A *Bacillus* strain capable of growth and sporulation comprising:

a homologous cell division gene from another bacterium partly or wholly replacing a cell division gene; and

two different reporter genes; wherein the first reporter gene has a promoter which is dependent on active  $\sigma^F$  or  $\sigma^E$  factor, and the second reporter gene provides a measure of the total synthesis of the  $\sigma^F$  or  $\sigma^E$  factor

where the cell division gene replaced is selected from the group consisting of *divIB*, *divIC*, *divIA*, *ftsA*, *ftsL*, *ftsZ* and *pbpB*.

32. (Cancelled)

33. (Previously presented) The *Bacillus* strain of claim 31, wherein the *Bacillus* strain is a *B. subtilis* strain.

34. (Previously presented) A method of assessing an agent for antibiotic activity, comprising the steps of:

incubating at least one *Bacillus* strain of claim 31, in the presence of the agent; and observing expression of the reporter gene or genes; wherein reduced expression of the reporter gene which is dependent on active  $\sigma^F$  or  $\sigma^E$  factor is a measure of antibiotic activity.

35. (Previously presented) The method of claim 34, wherein the *Bacillus* strain is induced to sporulate in the presence of the agent.

36. (Previously presented) The method of claim 34, wherein the *Bacillus* strain is induced to sporulate and is contacted with the agent just prior to asymmetric cell division.

37. (Currently amended) A panel comprising a plurality of *Bacillus* strains of claim 31, wherein the cell division gene of each *Bacillus* strain in the panel has been partly or wholly replaced by a homologous cell division gene from a different bacteria., where the cell division gene replaced is selected from the group consisting of *divIB*, *divIC*, *divIA*, *ftsA*, *ftsL*, *ftsZ* and *pbpB*.

38. (Previously presented) A method of assessing an agent for antibiotic activity, comprising the steps of:

incubating a panel of different *Bacillus* strain of claim 37, in the presence of the agent; and

observing expression of the reporter gene or genes; wherein reduced expression of the reporter gene which is dependent on active  $\sigma^F$  or  $\sigma^E$  factor in a strain is a measure of antibiotic activity.

39. (Previously presented) A method of determining whether an agent inhibits cell division in *Bacillus* species, comprising the steps of:

inducing the *Bacillus* strain of claim 31 to divide asymmetrically in the presence of the agent; and

observing expression of the first and second reporter genes; wherein reduced expression of the reporter gene which is dependent on active  $\sigma^F$  or  $\sigma^E$  factor is a measure of cell division inhibition.

40. (Previously presented) A method for determining whether an agent inhibits the outgrowth of a bacterium comprising the steps of:

(a) incubating a *Bacillus* strain of claim 31 in the presence of the agent; and

(a) observing expression of the one or more reporter genes; wherein reduced expression of the reporter gene which is dependent on active  $\sigma^F$  or  $\sigma^E$  factor is a measure of outgrowth inhibition.

41. (Previously presented) A method of preparing a composition for use in killing or inhibiting the outgrowth of bacteria, comprising carrying out the method of claim 40 and

formulating the agent identified as being capable of inhibiting the outgrowth of bacteria into a composition for use in inhibiting the outgrowth of bacteria.

42. (Previously presented) A *Bacillus* strain capable of growth and sporulation comprising;
- a mutated *spoIIIE* gene, wherein the mutation results in blocking transfer of the prespore chromosome;
  - a homologous *spoOJ* gene from another bacterium partly or wholly replacing an endogenous *spoOJ* gene; and
  - one or two different reporter genes, wherein at least one reporter gene is operatively linked to a promoter which is dependent on  $\sigma^F$  factor, and placed at a location wherein impaired SpoOJ function leads to increased trapping and increased expression in the prespore.
43. (Previously presented) The *Bacillus* strain of claim 42, further comprising a mutated *soj* gene.
44. (Previously presented) The *Bacillus* strain of claim 42, wherein the *Bacillus* strain is a *B. subtilis* strain.
45. (Previously presented) A method of assessing an agent for antibiotic activity, comprising the steps of:
- incubating at least one *Bacillus* strain of claim 42, in the presence of the agent; and
  - observing expression of the reporter gene or genes; wherein increased expression of one of the reporter genes indicates the agent acts as an antibiotic.
46. (Previously presented) The method of claim 45, wherein the *Bacillus* strain is induced to sporulate in the presence of the agent.
47. (Previously presented) The method of claim 45, wherein the *Bacillus* strain is induced to sporulate and is contacted with the agent just prior to asymmetric cell division.

48. (Previously presented) A panel comprising a plurality *Bacillus* strains of claim 42, wherein the *spoOJ* gene of each *Bacillus* strain in the panel has been partly or wholly replaced by a homologous *spoOJ* gene from different bacteria.

49. (Previously presented) A method of assessing an agent for antibiotic activity, comprising the steps of:

- (a) incubating the panel of *Bacillus* strains of claim 48, in the presence of the agent; and
- (b) observing expression of the reporter gene or genes; wherein increased expression of one of the reporter genes in a strain indicates the agent acts as an antibiotic.

50. (Previously presented) A method of determining whether an agent inhibits SpoOJ function in *Bacillus* species, comprising the steps of:

inducing the *Bacillus* strain of claim 42 to divide asymmetrically in the presence of the agent; and

observing expression of the first and second reporter gene; wherein increased expression of one of the reporter genes indicates that the agent inhibits SpoOJ function.

51. (Previously presented) A method for determining whether an agent inhibits the outgrowth of a bacterium comprising the steps of:

incubating a *Bacillus* strain of claim 42, in the presence of the agent; and

observing expression of the one or more reporter genes; wherein increased expression of one of the reporter genes indicates that the agent inhibits outgrowth.

52. (Currently amended) A method of preparing a composition for use in killing or inhibiting the growth of bacteria, comprising carrying out ~~contacting the bacteria with an agent identified by the method of claim 51~~ and formulating the agent identified as being capable of inhibiting the outgrowth of bacteria into a composition for use in inhibiting the outgrowth of bacteria.